

AMENDMENTS TO THE DRAWINGS:

The attached replacement sheet of drawings includes changes to Figure 1. The changes include the addition of a pipette, and a verification device on the pipette identified by reference numeral 16. The changes also include the addition of a double-sided arrow between the verification device and a transceiver 25. Support for these changes be found in at least page 4, lines 9-20; page 5, lines 11-18; and claims 12-15 of Applicant's application as originally-filed.

Attachments: Replacement Sheet (one (1) sheet including Figs. 1 and 3)

REMARKS

In the Office Action¹ mailed October 16, 2008, the Examiner took the following actions:

(a) objected to the drawings under 37 C.F.R. § 1.83(a) as allegedly failing to show every feature of the invention specified in the claims;

(b) objected to claims 11 and 12 due to alleged informalities;

(c) rejected claims 19-22 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention;

(d) rejected claims 1, 3, 5, and 6 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 6,060,320 to Dorenkott et al. ("Dorenkott");

(e) rejected claims 2, 4, and 13-18 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Dorenkott; and

(f) and rejected claims 7-12 and 19-22 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Dorenkott in view of U.S. Patent No. 5,857,893 to Olsen et al. ("Olsen").

By this Amendment, Applicant has amended claims 1, 3, 11, and 12; and Fig. 1 of the drawings. Accordingly, claims 1-22 remain pending in this application. No new matter has been entered by this Amendment.

I. Objection to the Drawings

In accordance with page 2 of the Office Action, Applicant has amended Fig. 1 to show pipettes (see the attached Replacement Sheet of Drawings). Thus, Applicant submits that the alleged deficiency in the drawings has been remedied. Applicant therefore requests reconsideration and withdrawal of this objection.

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicant declines to automatically subscribe to any statement or characterization in the Office Action.

II. Objection to the Claims

By this Amendment, Applicant has inserted the phrase “control and recording” before “unit” in claims 11 and 12. Antecedent basis for the phrase “control and recording unit” can be found in claim 7, from which claims 11 and 12 depend. With this change, Applicant submits that the alleged informalities on page 3 of the Office Action have been remedied. Applicant therefore requests reconsideration and withdrawal of this objection.

III. Rejection Under 35 U.S.C. § 112, Second Paragraph

On page 3 of the Office Action, claims 19-22 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Office Action asserts that in claims 19-22, “[i]t is vague and unclear as to whether the applicant is claiming one or a plurality of pipettes. All of the dependent claims are a dependent of [an] independent claim which only discloses a pipette” (emphasis in original). Office Action at 3.

Applicant respectfully submits that the indefiniteness assertion is contrary to the guidance of the M.P.E.P. Claims 19-22 depend either directly or indirectly from claims 3, 5, and 9. Claims 3, 5, and 9 are directed to a verification device for a pipette. Claims 19-22 are directed to a control and recording unit for managing a plurality of pipettes, each of those pipettes being fitted with the verification device for a pipette described in claims 3, 5, and 9. Claims 19-22 describe a feature of the control and recording unit, and do not claim a plurality of pipettes per se. Applicant submits that

claims 19-22 are neither vague nor unclear, and that the scope and meaning of claims 19-22 would be clear to a person having ordinary skill in the art.

For at least the above-outlined reasons, the rejection of claims 19-22 under 35 U.S.C. § 112, second paragraph, is improper. Therefore, Applicant respectfully requests reconsideration and withdrawal of this claim rejection.

IV. Rejection Under 35 U.S.C. § 102(b) Based on Dorenkott

On page 3 of the Office Action, claims 1, 3, 5, and 6 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Dorenkott. Applicant respectfully traverses the rejection. M.P.E.P. § 2131 states that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Dorenkott fails to teach or even suggest each and every element in claims 1, 3, 5, and 6, and thus, Dorenkott does not anticipate the claims.

A. The Dorenkott Reference

Dorenkott discloses an aspirating and dispensing apparatus 10 including an air pump 12 coupled to an accumulator 16 by an air vent 14. See Dorenkott, column 2, lines 49-54. A bleed valve 18 is located downstream of accumulator 16, and downstream of bleed valve 18 is a pump valve 20 having a tee connector 26 coupled to a downstream port, one branch of tee connector 26 being coupled to a motorized syringe-type pump or dilutor 28, and the other branch being coupled to a sample probe 30. See id. at column 2, lines 59-67. A flow-through pressure sensor or transducer 32 is provided between tee connector 26 and sample probe 30. See id. at column 3, lines 1 and 2. A system controller 40 controls operation of the system. See

Id. at column 3, lines 17-19. Dorenkott discloses the following with respect to the operation of aspirating and dispensing apparatus 10:

[i]n operation during an aspiration, the air pump 12 is turned on, forcing air through the probe 30 When the probe touches the fluid, the pressure sensor detects a rise in pressure. The air pump is turned off, and the bleed valve 18 is opened to depressurize the system. The pump valve 20 is then closed to isolate the pump 12 and the accumulator 16 from the probe 30 and the dilutor 28, and the dilutor is operated to draw a volume of the sample into the probe.

Id. at column 3, lines 28-39.

B. Amended Independent Claim 1

By this Amendment, Applicant has amended independent claim 1. Applicant submits that amended independent claim 1 is patentably distinguishable from Dorenkott because Dorenkott fails to teach, or even suggest,

measuring . . . the pressure at two points of the shaft; [and] calculating by integration from the measured pressure the volume of liquid displaced in the shaft

as recited in amended independent claim 1.

On page 4 of the Office Action, the following is asserted:

Dorenkott et al. discloses that the flow-through pressure transducer (32) has a plurality of fluid ports (52, 54) that are coupled to a shaft (e.g. probe 30) As depicted in fig. 2, Dorenkott et al. discloses the fluid ports (52, 54) are arranged at opposite sides of the pressure sensor (32 and). Therefore the fluid ports (52, 54) are coupled [to] the shaft (30) at two points of the shaft (30).

This assertion, however, is incorrect, and mischaracterizes Dorenkott. First, Fig. 1 of Dorenkott shows that pressure sensor 32 is coupled to probe 30 at a single point on probe 30, not two points as asserted by the Office Action. Even if, *arguendo*, fluid ports 52 and 54 are coupled to probe 30 at two points, which Applicant does not agree

is the case, Fig. 2 of Dorenkott shows that pressure sensor 32 measures pressure at a single point between fluid ports 52 and 54, not at two points of probe 30. Since pressure sensor 32 in Dorenkott measures pressure at a single point between fluid ports 52 and 54, Dorenkott fails to teach, or even suggest, "measuring . . . the pressure at two points of the shaft," as recited in independent claim 1. Thus, Dorenkott does not anticipate the claim for at least this reason.

Furthermore, amended independent claim 1 also recites, *inter alia*, "calculating by integration from the measured pressure the volume of liquid displaced in the shaft." Such a feature is not taught, or even suggested, by Dorenkott. Thus, Dorenkott does not anticipate the claim for at least this additional reason.

C. Amended Independent Claim 3

By this Amendment, Applicant has amended independent claim 3. Amended independent claim 3, while being of different scope, recites features similar to those recited in independent claim 1. For example, claim 3 recites, *inter alia*, "a sensor capable of supplying a pressure measurement at two points of the shaft . . . [and] a microprocessor programmed to calculate by integration from said measurements . . . the volume of liquid aspirated in the shaft." As such, Dorenkott does not anticipate the claim for reasons similar to that discussed above with respect to claim 1.

D. Dependent Claims 5 and 6

Claims 5 and 6 each depend from independent claim 3, and as such, include the features recited in claim 3. Therefore, Dorenkott does not anticipate claims 5 and 6 for at least the reasons stated above with respect to claim 3. In addition, each of the

dependent claims recites unique combinations that are neither taught nor suggested by the cited art, and therefore each is also separately patentable.

For at least the above-outlined reasons, the rejection of claims 1, 3, 5, and 6 under 35 U.S.C. § 102(b) is improper. Therefore, Applicant respectfully requests reconsideration and withdrawal of this claim rejection, and the timely allowance of claims 1, 3, 5, and 6.

V. Rejection Under 35 U.S.C. § 103(a) Based on Dorenkott

On page 5 of the Office Action, claims 2, 4, and 13-18 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Dorenkott. Applicant respectfully traverses the rejection because a *prima facie* case of obviousness has not been established.

"The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. . . . [R]ejections on obviousness cannot be sustained with mere conclusory statements."

M.P.E.P. § 2142, 8th Ed., Rev. 6 (Sept. 2007) (internal citation and inner quotation omitted). "In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious." M.P.E.P. § 2141.02(I) (emphases in original).

"[T]he framework for objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q 459 (1966). . . . The factual inquiries . . . [include determining the scope and content of the prior art and] . . . [a]scertaining the differences between the claimed invention and the

prior art.” M.P.E.P. § 2141(II). “Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art.” M.P.E.P. § 2141(III).

Here, a *prima facie* case of obviousness has not been established because the Examiner has neither properly determined the scope and content of the prior art nor properly ascertained the differences between the claims and the prior art. Accordingly, the Examiner has failed to clearly articulate a reason why the prior art would have rendered the claims obvious to one of ordinary skill in the art.

Claims 2, 4, and 13-18 depend from one of independent claims 1 and 3, and thus include all the elements thereof. As set forth above, Dorenkott fails to teach, or even suggest, at least “measuring . . . the pressure at two points of the shaft; [and] calculating by integration from the measured pressure the volume of liquid displaced in the shaft,” as recited in independent claim 1, and required by claim 2. Dorenkott also fails to teach, or even suggest, at least “a sensor capable of supplying a pressure measurement at two points of the shaft . . . [and] a microprocessor programmed to calculate by integration from said measurements . . . the volume of liquid aspirated in the shaft,” as recited in independent claim 3, and required by claims 4 and 13-18. The assertions on pages 5-7 of the Office Action fail to address the deficiencies of Dorenkott, particularly with respect to the above-recited features of claims 1 and 3. For at least this reason, a *prima facie* case of obviousness has not been established against claims 2, 4, and 13-18.

In addition, the rejection based on Dorenkott is improper due to the additional features recited in dependent claims 2, 4, and 13-18:

For example, claim 2 recites, *inter alia*, “transmitting a signal to the actuator in order to make it drive the piston such that the volume aspirated corresponds to the predetermined value.” As acknowledged on page 5 of the Office Action, Dorenkott does not disclose this feature. However, the Examiner contends that this feature would have been obvious in view of controller 40, the signal sent by the system, and the microprocessor of Dorenkott. See Office Action, page 5. This conclusion is improper because the proposed modification would destroy the main purpose of controller 40 (i.e., to detect and issue visible or audible alarms based on detected volume or elapsed time differences). In addition, the Examiner has not presented any valid motivation for the modification other than impermissible hindsight based on Applicant’s disclosure. A mere conclusory statement, such as that asserted against claim 2, cannot sustain the obviousness rejection. See M.P.E.P. § 2142.

The Office Action also cites column 5, lines 7-11 of Dorenkott in support of the obviousness rejection of claim 2. The cited passage, however, is only a broad statement that “many variations are possible.” It in no way teaches or suggests all of the features of claim 2. Accordingly, Applicant requests reconsideration and withdrawal of the rejection.

Page 6 of the Office Action asserts that claim 13 is obvious, and relies on the same flawed reasoning used to reject claim 2. Thus, Applicant’s arguments with respect to claim 2 also apply to claim 13. Accordingly, Applicant requests reconsideration and withdrawal of the claim rejection.

In view of the mischaracterizations of Dorenkott discussed above, the Examiner has neither properly determined the scope and content of the prior art nor properly

ascertained the differences between the prior art and the combinations of claims 2, 4, and 13-18. Thus, the Examiner has failed to clearly articulate a reason why claims 2, 4, and 13-18 would have been obvious to one of ordinary skill in the art in view of the prior art. Accordingly, a *prima facie* case of obviousness has not been established with respect to those claims, and the rejection under 35 U.S.C. § 103(a) must be withdrawn.

VI. Rejection Under 35 U.S.C. § 103(a) Based on Dorenkott and Olsen

On page 7 of the Office Action, claims 7-12 and 19-22 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Dorenkott in view of Olsen. Applicant respectfully traverses the rejection because a *prima facie* case of obviousness has not been established.

Here, a *prima facie* case of obviousness has not been established because the Examiner has neither properly determined the scope and content of the prior art nor properly ascertained the differences between the claims and the prior art. Accordingly, the Examiner has failed to clearly articulate a reason why the prior art would have rendered the claims obvious to one of ordinary skill in the art.

Claims 7-12 and 19-22 depend from independent claim 3, and thus include all the elements thereof. As set forth above, Dorenkott fails to teach, or even suggest, at least "a sensor capable of supplying a pressure measurement at two points of the shaft . . . [and] a microprocessor programmed to calculate by integration from said measurements . . . the volume of liquid aspirated in the shaft," as recited in independent claim 3, and required by claims 7-12 and 19-22. Olsen fails to cure the deficiencies of Dorenkott, since Olsen fails to teach or suggest the above-recited feature of claim 3. Nor has Olsen been cited for such a purpose. For at least this reason, a *prima facie*

case of obviousness has not been established against claims 7-12 and 19-22, and thus, the rejection is improper.

In addition to the deficiencies above, the proposed modification of Dorenkott with the teachings of Olsen is further improper under 35 U.S.C. § 103(a) because a person having ordinary skill in the art would not have considered Dorenkott and Olsen to be analogous art. According to the M.P.E.P., if a reference is not one which, because of the matter with which it deals, logically would have commanded itself to an inventor's attention in considering his or her invention as a whole, the reference is non-analogous art. M.P.E.P. § 2141.01(a). Moreover, if a reference is non-analogous art, it cannot be relied on a claim rejection under 35 U.S.C. § 103(a). Id.

Applicant respectfully submits Dorenkott is non-analogous art to Olsen. Dorenkott is concerned with the problem of aspirating and delivering a consistent known volume of a sample (e.g., body fluids) to a reaction cuvette for analysis, and allegedly addresses the problem by verifying the volume and uniformity of the sample. See Dorenkott, column 1, lines 20-25 and 44-47. In contrast, Olsen is concerned primarily with the problem of costs associated with the consumption and disposal of slurry compounds and deionized water during a semiconductor wafer fabrication process, and proposes an asserted solution of controlling the amount of slurry and deionized water used during the process. See Olsen, column 2, lines 10-15. It is not reasonable to expect that an artisan in Dorenkott's field of verifying samples would look to Olsen's semiconductor wafer fabrication system and processes to solve a problem purportedly known in Dorenkott's field. For at least this additional reason, the Dorenkott and Olsen

references are non-analogous art and, when viewed as a whole, do not render

Applicant's claims 1-12 and 19-22 *prima facie* obvious.

CONCLUSION

In view of the foregoing, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account 06-0916.

Respectfully submitted,

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Dated: March 16, 2009

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Attachments: Replacement Drawing Sheet (one (1) page, including Figs. 1 and 3)